

Zhengzhou Huang, Zhengyang Huang

ACT Award 2: Hybrid Experiments

Earth

This is a proposal to build *Earth*, a speculative server made of grits and sand to intercept personal data tracked in real time from being collected, released and leaked.

Earth has long been deemed as the provenance and accommodation of infrastructure. Rocks and sand suitable for producing digital products are mined, intensely aggregated, and further purified as silicon, iron, copper, carbon, etc. The practice of earth extraction and the politics over territory of resources are closely related to the popular strategy of data mining in our information system. As in “Sand in the Gears” by Ingrid Burrington, not only does hardware rely on quarrying techniques, but also the data incentivized platform economy is influenced by the politics of aggregating, where users’ data are cleaned and congealed as categories of consumer behaviors.

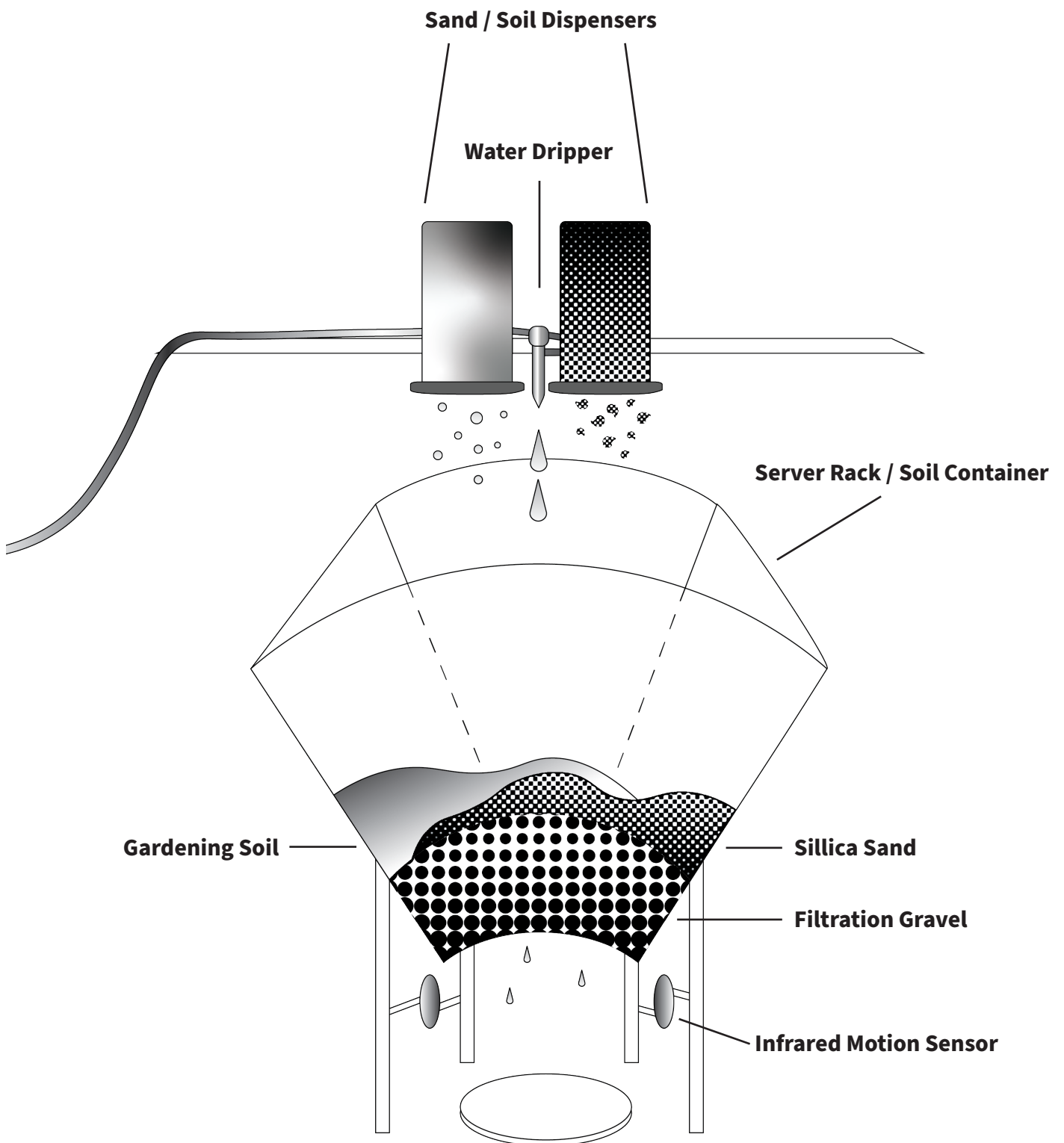
As we measure more, collect more, analyze, generalize more, and predict more with our data, how can we escape the definite categories and features that reduce our ambiguous decisions and not-entirely-predictable behaviors in the process of production and consumption? In the *Earth* project, we reappropriate the practice of aggregating where earth functions as resistance and interception in the process of data management and monetization.

Earth takes the form of a server rack. Instead of holding computers, each rack holds filtration gravel, sand, and soil. When a personal device attempts to log data in real time, a small stream of water drops onto the top layer of the “Earth Server”. Once the water drips through the rack, the data will be leaked. During the process, the racks of sand and soil will absorb the water to prevent it from getting through and therefore hold off the data from leakage.

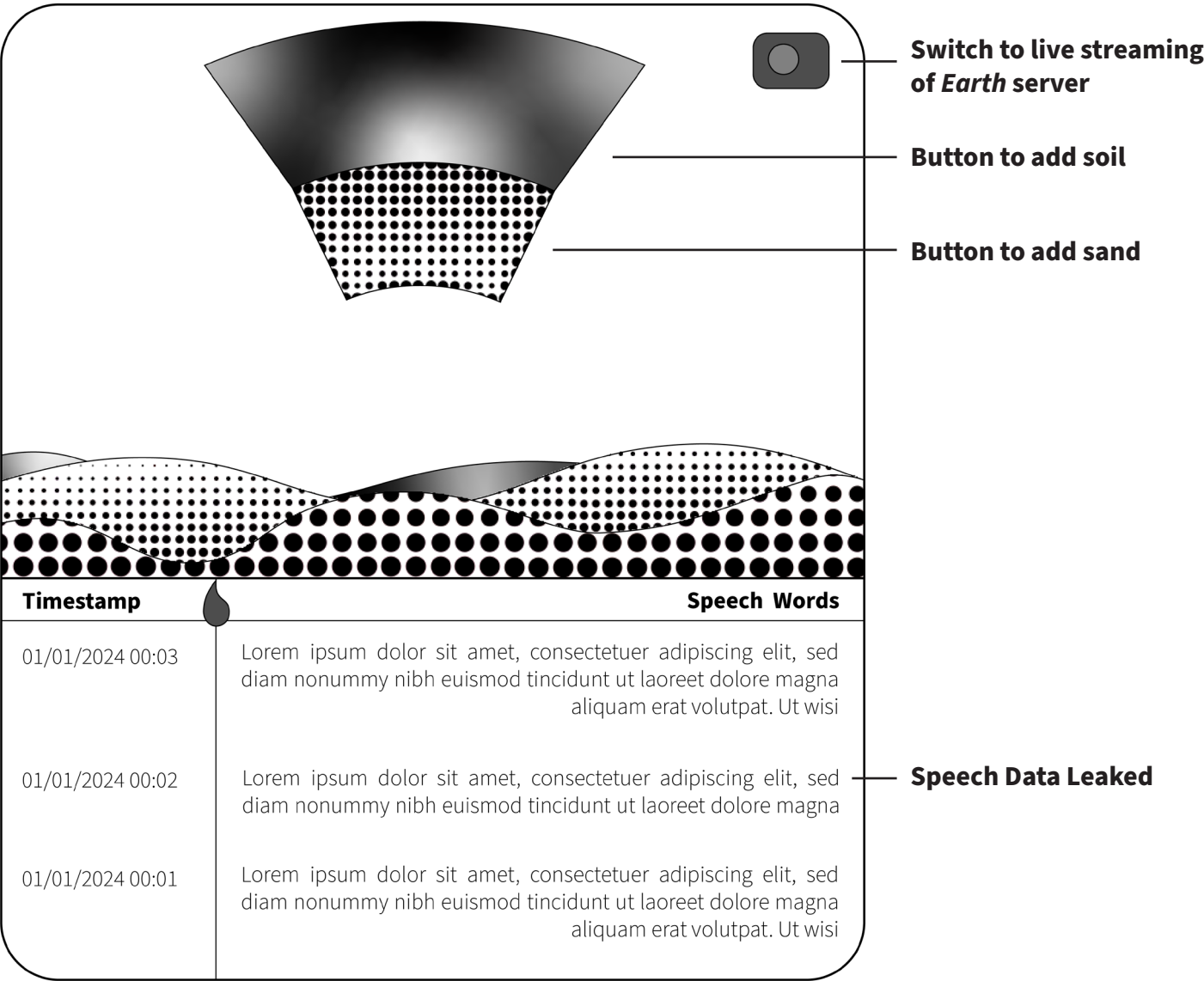
For this project, the two artists will have their daily speech-to-text data logged by their personal devices during the exhibition period. Each time the devices log speech data, water drops onto the *Earth* server rack. The counteraction between earth and water, interception and data leakage, is presented as a trade-off to the viewer—the trade-off between the access to personal speech data as it gets leaked and the protection of such personal data. When the first layer of soil and sand in the *Earth* server becomes wet, water can drip through easily and the speech data will be leaked and accessible to the viewers online. On the other hand, viewers can protect such data from leakage by adding new layers of soil and sand to the server through a web application.

Earth is one in a series of four projects, [Air](#), [Water](#), [Fire](#), *Earth*, done collaboratively by Zhengyang and Zhengzhou Huang. Imagining element-based techniques as alternatives to our mineral-based technologies, in this series, we borrow metaphors, create narratives, invent new mechanisms and displace interfaces.

Earth Server Rack To Show In Person



Web Application To Interact With *Earth* Server Online



Budget

Electronics

Arduino Board -----	\$ 60
Infrared Motion Sensor -----	\$ 30
Motorized Track -----	\$ 100
Linear Motion Actuator -----	\$ 100
Irrigation Dripper -----	\$ 30
Solder Machine -----	\$ 50
Mini Computer -----	\$ 400
Small LED Monitor -----	\$ 200
Miscellaneous (PCR boards, resistors, transistors, etc.) -----	\$ 100

Fabrication

Plexiglass -----	\$ 220
Metal Mesh -----	\$ 30
Filtration Gravels -----	\$ 20
Filtration Silica Sand -----	\$ 20
Filtration Carbon -----	\$ 50
Gardening Soil -----	\$ 10
Fabrication Tools (epoxy glue, clamps, protection glasses, etc.) -----	\$ 100
Workshop/Makerspace Fee -----	\$ 700

3D Printing Fee ----- \$350

Work Hour Compensation (100 hrs / 2 people) ----- \$ 6000

Total ----- \$ 8570

CV's of Both Artist

Zhengzhou Huang

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Exhibitions and Shows

[Society for Literature, Science and the Arts \(SLSA\) Poster Exhibition](#), Penny W. Stamps School of Art & Design at the University of Michigan, 09/2021

[The Last Online Show](#), Design Media Arts MFA thesis show, University of California, Los Angeles, 05/2021

[Air](#), solo show of a collaboration work at Department of Design Media Arts, University of California, Los Angeles, 02/2021

[Share Screen](#), Design Media Arts fall preview show, University of California, Los Angeles, 10/2020

[D02.2](#), Plicnik Space Initiative, Online Exhibition, 10/2020

[Here/After](#), Senior Art Exhibition, University Art Gallery, University of California, San Diego, 06/2019

[Honors Thesis Show](#), Adam D. Kamil Gallery, University of California, San Diego, 06/2019

Other Art: Art + Music Festival, organized by Mi Mate, Sun God Lawn, University of California, San Diego, 05/2018

Ourselves, The Undergraduate Art Show, University of California, San Diego, 06/2017

Awards

Clifton Webb Scholarship, University of California Los Angeles, 2021

Dr. Hyman Eugene Oxman & Frieda Dreyer Oxman Fellowship, University of California Los Angeles, 2021

Dean's Graduate Scholarship, D|MA, School of Arts & Architecture, UCLA, 2020 - 2021

Magna Cum Laude, University of California San Diego, 2019

Initiated as a member of Phi Beta Kappa Sigma Chapter, University of California San Diego, 2019

Russell Foundation Grant, University of California San Diego, 2018

Visual Arts Department Class Grant for Studio Art, University of California San Diego, 2017

Teaching

Lecturer at Department of Design Media Arts, University of California, Los Angeles, 06/2021 - 08/2021

Education

2019 - 2021, MFA, Design Media Arts, University of California, Los Angeles

2015- 2019, BA, Visual Arts (Studio), University of California, San Diego

Publication

[Virtual Poster Exhibition SLSA](#), 2021

[Plicnik Space Initiative: D02.2 \(Plicnik Collective\)](#), 2020

Zhengyang Huang

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Project & Exhibition Experiences

- [Society for Literature, Science, and The Arts Poster Exhibition](#), *Air, Water, Fire*, Penny W. Stamps School of Art & Design at the University of Michigan, Ann Arbor, 09/2021
- *The Last Online Show*, [Air](#), [Water](#), [Fire](#), Design Media Arts MFA thesis show, University of California, Los Angeles, 05/2021
- [Air](#), solo show, University of California Los Angeles, 02/2021
- [Share Screen](#), [Artstrology](#), Design Media Arts fall preview show, University of California Los Angeles, 10/2020
- [Image at Surface](#), solo show, Linda Matney Gallery, Williamsburg VA, 04/2019
- *A Sense of Occasion*, Andrews Gallery, William & Mary, Williamsburg VA, 05/2019
- *Capstone*, Williamsburg Contemporary Art Center, Williamsburg VA, 2/2019
- [Transposition: Asian Cultures](#), *Fan Impromptu*, Linda Matney Gallery, Williamsburg VA, 02/2018

Publication

[Virtual Poster Exhibition SLSA](#), Society for Literature, Science, and The Arts, 2021

[Image at Surface](#), Artsy, 2019

Transparency, Acropolis Art Journal, William & Mary, 2017

Awards

Clifton Webb Scholarship, School of Arts & Architecture, UCLA, 2021

Dr. Hyuman Eugene Oxman & Frieda Dreyer Oxman Fellowship, School of Arts & Architecture, UCLA, 2021

Alumni Association Award, William & Mary, 2019

Honors Research Project Fellowship, William & Mary, 2018

The Joseph Palin Thorley Memorial Scholarship for the Study of Art, William & Mary, 2018

Phi Beta Kappa, Member Initiation, Alpha of Virginia at the College of William and Mary, 2018

The Joseph Palin Thorley Memorial Scholarship for the Study of Art, William & Mary, 2017

Teaching

Lecturer at Department of Design Media Arts, University of California, Los Angeles, 06/2021 - 08/2021

Education

University of California, Los Angeles, CA	09/2019 - 06/2021
MFA, Design Media Arts	
College of William and Mary, Williamsburg, VA	08/2015 - 05/2019
BA, Studio Arts	

